Samsung SRP-270 Dot Matrix Receipt Printer

Integrator's Manual

Contents

Driver Installation Information **2**

Overview 2
Windows 98 SRP-270 Driver Installation 3
Windows 98 Generic / Text Driver Settings 4
Windows 2000 Generic / Text Driver Settings 5
Windows XP Generic / Text Driver Settings 6

Hexadecimal Dumping **7**

Overview 7
Hexadecimal Dump Sample Printout 9
Troubleshooting 10

Cash Drawer **11**

Generate Pulse Command 11
Connection Information 12

Special Application Firmware **13**

Overview 13

CRS, Inc.

2909 Anthony Lane
Minneapolis, MN 55418
(612) 781-3474

All specifications are subject to change without notice ©2002, Cash Register Sales, Inc.

Driver Installation Information

Overview

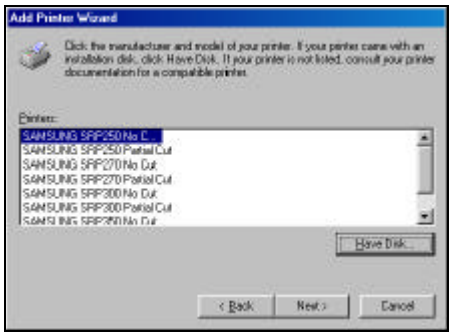
If your POS software requires a generic printer driver, you must make the appropriate driver settings for auto cut and cash drawer opening.

If you are using one of the SRP-270 drivers the generic driver settings shown here do not apply. The appropriate SRP-270 drivers operate the cutter and cash drawer automatically.

Windows 98 SRP-270 Driver Installation

You can download the compressed SRP-270 driver, 270 9xDriver.zip, from the dealer area of the CRS site, www.crs-usa.com. Unzip (extract) the files srp270.drv and Samsung.inf.

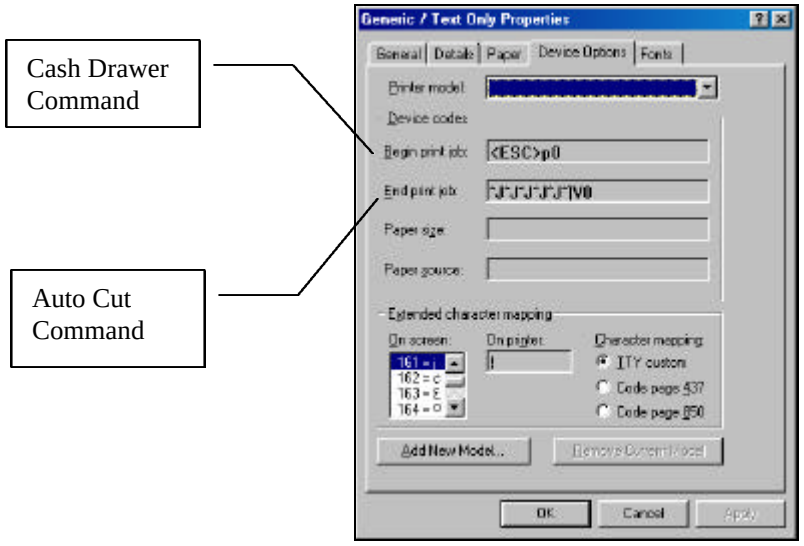
1. Select **Start**, then **Settings**, and then **Printers**.
2. From the printers dialog, right click the **Add Printer** icon.
3. From the Add Printer wizard window, click **Next**.
4. Choose **Local Printer**, click **Next**.
5. Click the **Have Disk** command button. From the Install From Disk dialog box, click the **Browse** button to locate the driver file SRP270.drv. Click **OK**. The wizard displays the list of drivers for several Samsung printers.



6. Select either SRP270 No Cut (use when paper cutter is not used) or SRP Partial Cut (use when paper cutter is used) click **Next**.
7. Select the port to which the printer will be connected and click **Next**.
8. Enter a printer name and select whether you want your windows based program to use this printer as the default printer. Click **Next**.
9. Select whether you wish to print a test page and click **Finish**. The printer driver installation is complete.

Windows 98 Generic / Text Driver Settings

1. Select **Start**, then **Settings**, and then **Printers**.
2. From the printers dialog, right click the **Generic / Text Only** driver and choose **Properties**.
3. From the Generic / Text Only dialog box, click the **Device Options** tab:



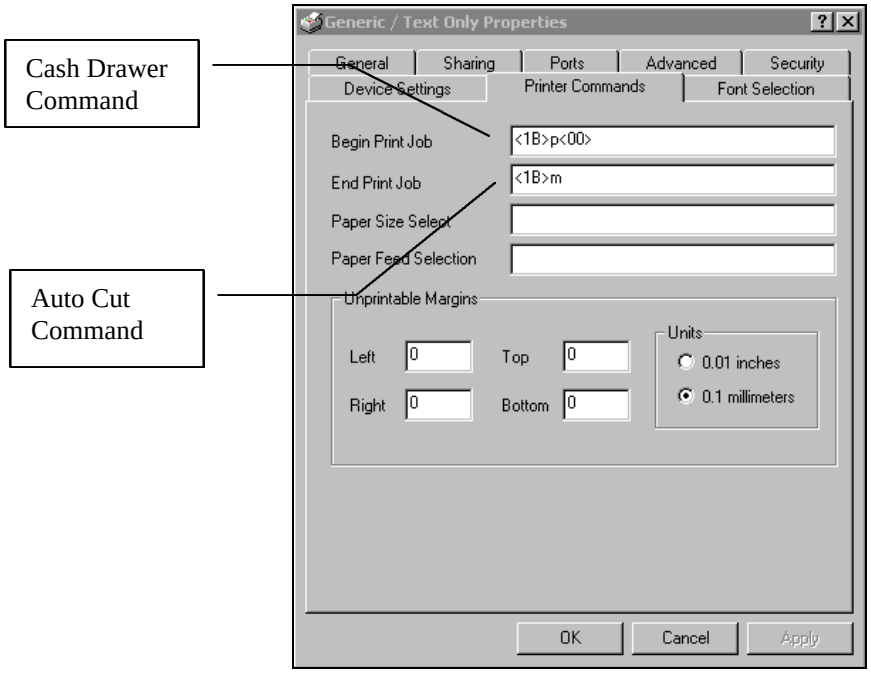
4. For the cash drawer command, in the **Begin Print** Job field:
   Type: ESC (<ESC> will display)
   Type: p (lower case)
   Type: 0 (drawer 1) *or* 1 (drawer 2)
   Type: 25 (on time)
   Type: 125 (off time)
5. For the auto cut command, in the **End print Job** field:
   Press ALT and type: 0010 (line feed) :
   Press ALT and type: 0010 (line feed) :
   Press ALT and type: 0010 (line feed) :
   Press ALT and type: 0010 (line feed) :
   Press ALT and type: 0010 (line feed)
   Press ALT and type: 0029 (GS) :
   Press ALT and type: 0086 (V) :
   Press ALT and type: 0001 (ASCII 01)

NOTE:
To enter these commands, it may be necessary to activate the Num Lock and use the 10-key pad on your keyboard.

6. Click **OK** to save the new settings.

Windows 2000 Generic / Text Driver Settings

1. Click the **Start button**, and then choose **Settings**, and then choose **Printers**.
2. From the printers dialog, right click the **Generic / Text Only** driver and choose **Properties**.
3. From the Generic / Text Only dialog box, click the **Printer Commands** tab:



4. For the cash drawer command, in the **Begin Print Job** field:
   Type: "<1B>p<00>"

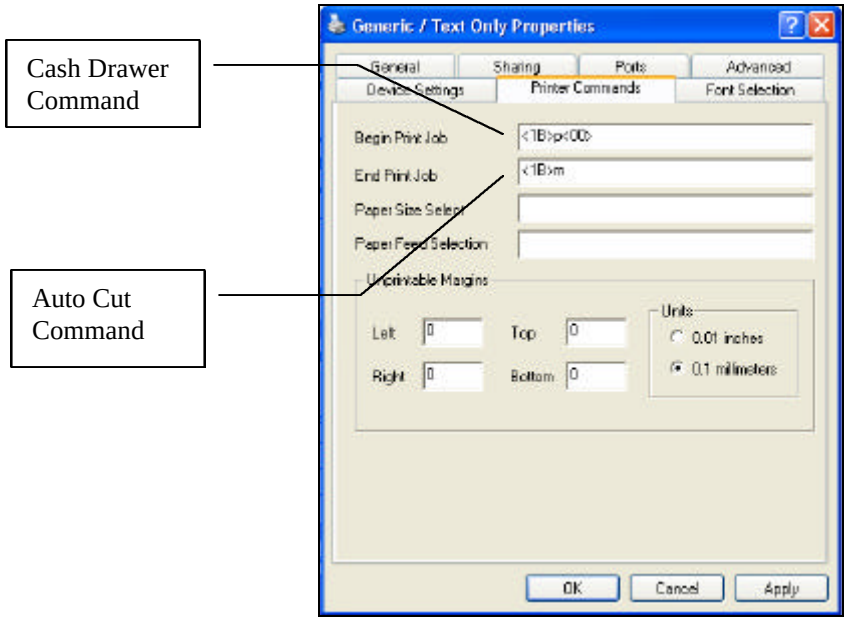
5. For the auto cut command, in the **End print Job** field:
   Type: "<1B>m"

6. Click **OK** to save the new settings.

NOTE:
To enter these commands, it may be necessary to activate the Num Lock and use the 10-key pad on your keyboard.

Windows XP Generic / Text Driver Settings

1. Click the **Start button**, and then choose **Printers and Faxes**.
2. From the printers dialog, right click the **Generic / Text Only** driver and choose **Properties**.
3. From the Generic / Text Only dialog box, click the **Printer Commands** tab:



4. For the cash drawer command, in the **Begin Print Job** field:
   Type: "<1B>p<00>"

5. For the auto cut command, in the **End print Job** field:
   Type: "<1B>m"

6. Click **OK** to save the new settings.

NOTE:
To enter these commands, it may be necessary to activate the Num Lock and use the 10-key pad on your keyboard.

Hexadecimal Dumping

Overview

This feature allows experienced users to see exactly what data is coming to the printer. This can be useful in finding software problems. When you turn on the hexadecimal dump function, the printer prints all commands and data in hexadecimal format along with a guide section to help you find specific commands.

SRP-270 Hexadecimal Dump

To use the hexadecimal dump function, follow these steps:

1. Make sure that the printer is off.
2. Open the access panel on the bottom of the printer to expose the dip switches. Set switch 2-2 to the **ON** position.
3. Turn on the printer; the printer is in the hexadecimal dump mode.
4. Run any software program that sends data to the printer. The printer will print all the codes it receives in a two-column format. The first column contains the hexadecimal codes and the second column gives the ASCII characters that correspond to the codes.
5. When the printing finishes, turn off the printer and return switch 2-2 to the **OFF** position.
6. Turn on the printer. Hexadecimal mode is OFF.

Epson TM-300/U200 Hexadecimal Dump

It may be useful to compare hexadecimal dumps with a known printer, such as the Epson TM-300 or U200. To print a hexadecimal dump on the TM-300/U200:

1. Make sure the printer is off and set dip switch 1-2 to **ON**.
2. Hold down the PAPER FEED button while you turn on the printer, and then release the PAPER FEED button quickly.

   Note: Releasing and pressing the PAPER FEED button should be performed before the printer finishes initializing, otherwise the printer begins the self test.
3. When the printer enters the hex dump mode, it prints "Hexadecimal Dump".
4. Run any program the sends data to the printer – the hexadecimal dump will print.
5. When the printing finishes, turn off the printer or reset it to turn off the hex dump mode.
6. If you changed the dip switch 1-2, return it to the OFF position.

Hexadecimal Dump Sample Printout

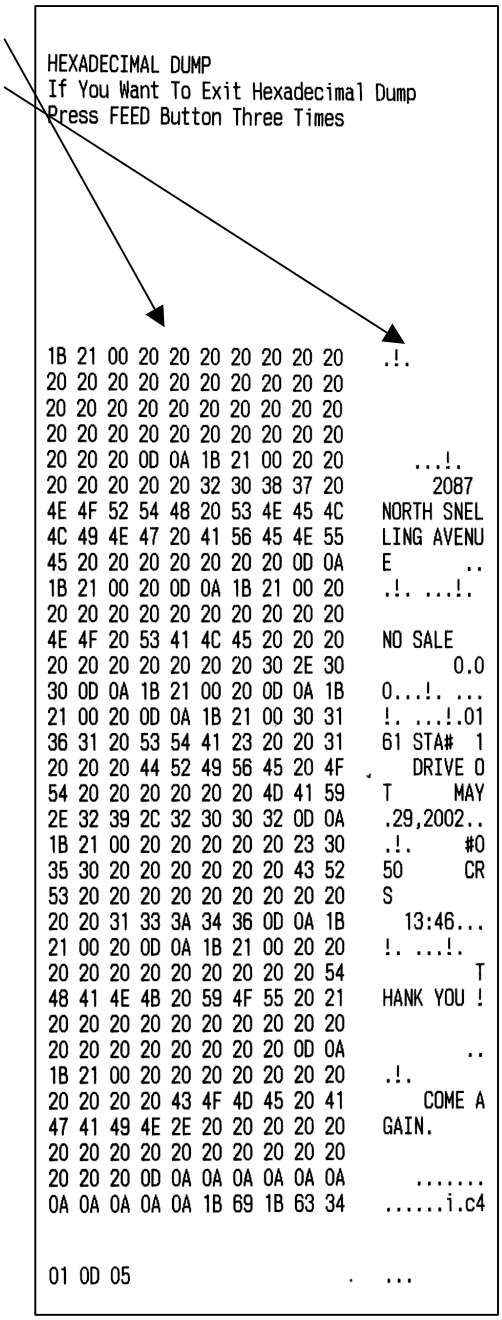
The sample “No Sale” transaction below is also shown in the two-column hexadecimal dump format on the right.

The first column contains the hexadecimal codes.

The second column prints the ASCII characters that correspond to the codes.

- A period is printed for each code that has no ASCII equivalent.
- Control codes are printed in bold for emphasis.
- During the hex dump, all commands except **DLE EOT** and **DLE ENG** are disabled.

```
        2087 NORTH SNELLING AVENUE

             NO SALE          0.00


0160 STA#  1   DRIVE OT       MAY.29,2002
     #050      CRS            13:45

             THANK YOU !
             COME AGAIN.
```

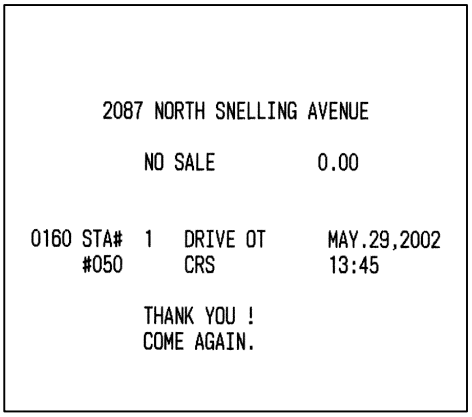


```
HEXADECIMAL DUMP
If You Want To Exit Hexadecimal Dump
Press FEED Button Three Times

1B 21 00 20 20 20 20 20 20 20   .!.
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20
20 20 20 0D 0A 1B 21 00 20 20      ...!.
20 20 20 20 20 32 30 38 37 20       2087
4E 4F 52 54 48 20 53 4E 45 4C   NORTH SNEL
4C 49 4E 47 20 41 56 45 4E 55   LING AVENU
45 20 20 20 20 20 20 20 0D 0A   E       ..
1B 21 00 20 0D 0A 1B 21 00 20   .!. ...!.
20 20 20 20 20 20 20 20 20 20
4E 4F 20 53 41 4C 45 20 20 20   NO SALE
20 20 20 20 20 20 20 30 2E 30          0.0
30 0D 0A 1B 21 00 20 0D 0A 1B   0...!. ...
21 00 20 0D 0A 1B 21 00 30 31   !. ...!.01
36 31 20 53 54 41 23 20 20 31   61 STA#  1
20 20 20 44 52 49 56 45 20 4F      DRIVE O
54 20 20 20 20 20 20 4D 41 59   T      MAY
2E 32 39 2C 32 30 30 32 0D 0A   .29,2002..
1B 21 00 20 20 20 20 20 23 30   .!.     #0
35 30 20 20 20 20 20 20 43 52   50      CR
53 20 20 20 20 20 20 20 20 20   S
20 20 31 33 3A 34 36 0D 0A 1B     13:46...
21 00 20 0D 0A 1B 21 00 20 20   !. ...!.
20 20 20 20 20 20 20 20 20 54            T
48 41 4E 4B 20 59 4F 55 20 21   HANK YOU !
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 0D 0A           ..
1B 21 00 20 20 20 20 20 20 20   .!.
20 20 20 20 43 4F 4D 45 20 41       COME A
47 41 49 4E 2E 20 20 20 20 20   GAIN.
20 20 20 20 20 20 20 20 20 20
20 20 20 0D 0A 0A 0A 0A 0A 0A      .......
0A 0A 0A 0A 0A 1B 69 1B 63 34   ......i.c4


01 0D 05                        .  ...
```

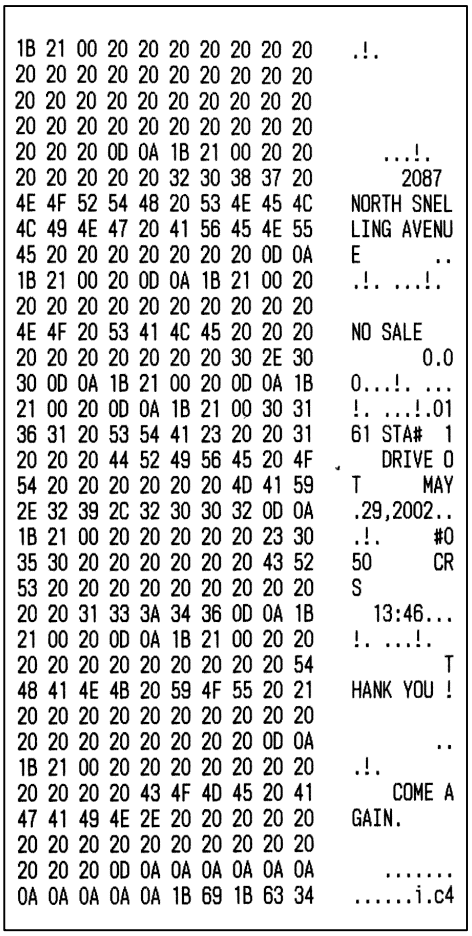
Troubleshooting

If you are connecting an SRP-270 to a specific software application for the first time, you may encounter printing differences from a printer model you are currently supporting. You can isolate the commands causing the print difference by comparing hex dumps from a working printer the printer with a problem print format. For example, receipts and the corresponding hex dumps from two printers, the Samsung SRP-270 and the Epson TM-300 are shown below:

SRP-270 Receipt & Hex Dump

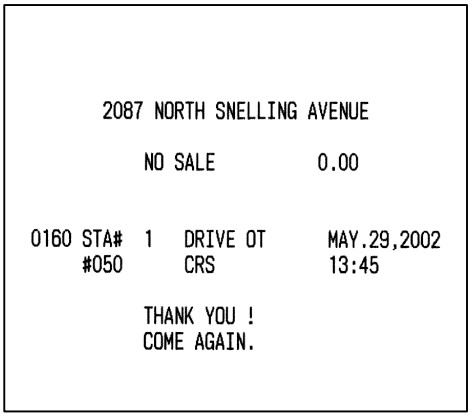


```
        2087 NORTH SNELLING AVENUE

             NO SALE          0.00


0160 STA#  1   DRIVE OT       MAY.29,2002
     #050      CRS            13:45

             THANK YOU !
             COME AGAIN.
```

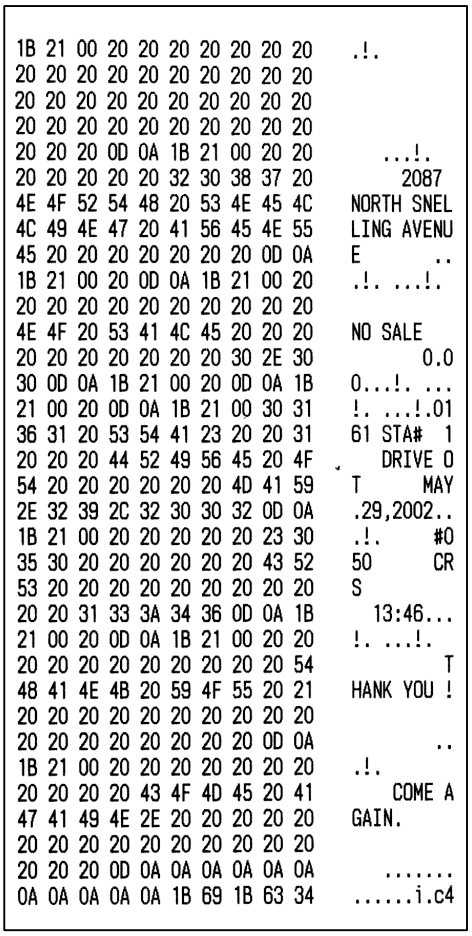


```
1B 21 00 20 20 20 20 20 20 20    .!.
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20
20 20 20 0D 0A 1B 21 00 20 20       ...!.
20 20 20 20 20 32 30 38 37 20         2087
4E 4F 52 54 48 20 53 4E 45 4C    NORTH SNEL
4C 49 4E 47 20 41 56 45 4E 55    LING AVENU
45 20 20 20 20 20 20 20 0D 0A    E        ..
1B 21 00 20 0D 0A 1B 21 00 20    .!. ...!.
20 20 20 20 20 20 20 20 20 20
4E 4F 20 53 41 4C 45 20 20 20    NO SALE
20 20 20 20 20 20 20 30 2E 30           0.0
30 0D 0A 1B 21 00 20 0D 0A 1B    0...!. ...
21 00 20 0D 0A 1B 21 00 30 31    !. ...!.01
36 31 20 53 54 41 23 20 20 31    61 STA#  1
20 20 20 44 52 49 56 45 20 4F      DRIVE O
54 20 20 20 20 20 20 4D 41 59    T      MAY
2E 32 39 2C 32 30 30 32 0D 0A    .29,2002..
1B 21 00 20 20 20 20 20 23 30    .!.     #0
35 30 20 20 20 20 20 20 43 52    50      CR
53 20 20 20 20 20 20 20 20 20    S
20 20 31 33 3A 34 36 0D 0A 1B      13:46...
21 00 20 0D 0A 1B 21 00 20 20    !. ...!.
20 20 20 20 20 20 20 20 20 54             T
48 41 4E 4B 20 59 4F 55 20 21    HANK YOU !
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 0D 0A             ..
1B 21 00 20 20 20 20 20 20 20    .!.
20 20 20 20 43 4F 4D 45 20 41        COME A
47 41 49 4E 2E 20 20 20 20 20    GAIN.
20 20 20 20 20 20 20 20 20 20
20 20 20 0D 0A 0A 0A 0A 0A 0A       .......
0A 0A 0A 0A 0A 1B 69 1B 63 34    ......i.c4
```

TM-300 Receipt & Hex Dump



```
        2087 NORTH SNELLING AVENUE

             NO SALE          0.00


0160 STA#  1   DRIVE OT       MAY.29,2002
     #050      CRS            13:45

             THANK YOU !
             COME AGAIN.
```



```
1B 21 00 20 20 20 20 20 20 20    .!.
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20
20 20 20 0D 0A 1B 21 00 20 20       ...!.
20 20 20 20 20 32 30 38 37 20         2087
4E 4F 52 54 48 20 53 4E 45 4C    NORTH SNEL
4C 49 4E 47 20 41 56 45 4E 55    LING AVENU
45 20 20 20 20 20 20 20 0D 0A    E        ..
1B 21 00 20 0D 0A 1B 21 00 20    .!. ...!.
20 20 20 20 20 20 20 20 20 20
4E 4F 20 53 41 4C 45 20 20 20    NO SALE
20 20 20 20 20 20 20 30 2E 30           0.0
30 0D 0A 1B 21 00 20 0D 0A 1B    0...!. ...
21 00 20 0D 0A 1B 21 00 30 31    !. ...!.01
36 31 20 53 54 41 23 20 20 31    61 STA#  1
20 20 20 44 52 49 56 45 20 4F      DRIVE O
54 20 20 20 20 20 20 4D 41 59    T      MAY
2E 32 39 2C 32 30 30 32 0D 0A    .29,2002..
1B 21 00 20 20 20 20 20 23 30    .!.     #0
35 30 20 20 20 20 20 20 43 52    50      CR
53 20 20 20 20 20 20 20 20 20    S
20 20 31 33 3A 34 36 0D 0A 1B      13:46...
21 00 20 0D 0A 1B 21 00 20 20    !. ...!.
20 20 20 20 20 20 20 20 20 54             T
48 41 4E 4B 20 59 4F 55 20 21    HANK YOU !
20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 0D 0A             ..
1B 21 00 20 20 20 20 20 20 20    .!.
20 20 20 20 43 4F 4D 45 20 41        COME A
47 41 49 4E 2E 20 20 20 20 20    GAIN.
20 20 20 20 20 20 20 20 20 20
20 20 20 0D 0A 0A 0A 0A 0A 0A       .......
0A 0A 0A 0A 0A 1B 69 1B 63 34    ......i.c4
```

Cash Drawer

Generate Pulse Command

ESC p m t1 t2

[Name]	Generate Pulse					
[Format]	ASCII	ESC	p	m	t1	t2
	Hex	1B	70	m	t1	t2
	Decimal	27	112	m	t1	t2
[Range]	m = 0, 1, 48, 49					
	0 ≤ t1 ≤ 255, 0 ≤ t2 ≤ 255					
[Description]	Outputs the pulse specified by t1 & t2 to connector pin m as follows:					

m	**Connector pin**
0,48	Drawer kick-out connector pin 2
0,49	Drawer kick-out connector pin 5

Connection Information

SRP 270 to CRS Cash Drawer (Drawer #1)

SRP 350		CRS Cash Drawer	
Description	Pi	Pin	Description
Frame ground	1	1 (blue)	Frame ground
Drawer kick-out drive signal 1	2	2 (yellow)	Solenoid
Drawer open/close signal	3	3 (green)	Drawer open switch
+24V	4	4 (red)	Solenoid
Drawer kick-out drive signal 2	5	5 (black)	Not used
Signal ground	6	6 (white)	Drawer open switch

SRP 270 to CRS Cash Drawer (Drawer #2)

SRP 350		CRS Cash Drawer	
Description	Pi	Pin	Description
Frame ground	1	1 (blue)	Frame ground
Drawer kick-out drive signal 1	2	2 (yellow)	Solenoid
Drawer open/close signal	3	3 (green)	Drawer open switch
+24V	4	4 (red)	Solenoid
Drawer kick-out drive signal 2	5	5 (black)	Not used
Signal ground	6	6 (white)	Drawer open switch

Special Application Firmware

Overview

Special application firmware can be downloaded from www.crs-usa.com.

SRP270 version 1.35 beep #1

This special software will fire cash drawer #1 command when the cut command is executed and also when the paper is out. This requires part number 205089.

SRP270 version 1.35 beep #2

This special software will fire cash drawer #2 command when the paper is out. This requires part number 205089.